

JOINT MANAGEMENT PLAN REVIEW

WATER QUALITY PROTECTION PROGRAM – EVALUATION, IMPLEMENTATION NEEDS AND FUTURE PRIORITIES

OVERVIEW

The Sanctuary is currently conducting a Joint Management Plan Review Process (JMPR), to update the overall management plan for the site, and has completed a series of initial scoping meetings and comment periods. Fifteen specific issues that were of principal concern to the public and the Sanctuary were identified as areas for discussion in a working group context.

Water quality has been a frequently raised concern in the public scoping process. The Sanctuary and its partners have developed a framework to address water quality in four previously developed plans of the Water Quality Protection Program (WQPP). The WQPP is a collaborative effort with federal, state and local agencies, public and private groups to identify and address water quality issues in the Sanctuary and its watersheds. The four plans that have been completed and implementation begun include urban runoff, regional monitoring, marinas and boating, and agriculture.

The JMPR will include recommendations on prioritizing strategies, necessary updates, and approaches to full implementation of these existing plans. The WQPP committee will be reviewing the current degree of implementation of each of the plans, identifying successes and challenges, addressing barriers and need for implementation, prioritizing existing strategies, developing funding strategies, identifying partners and outlining any modifications needed for the next 5 to 10 years. These plans will also be formally incorporated into the management plan for the Sanctuary.

BACKGROUND

The Sanctuary is adjacent to nearly 300 miles of California's Coastline and receives runoff from eleven major watershed areas. The 7000 square miles of land uses in the adjacent watersheds range from forest and grazing lands to heavily agricultural and urbanized areas. As rainfall or irrigation water passes over the different land uses within the watershed it can pick up a variety of pollutants, which find their way into streams, rivers, wetlands, harbors, and eventually into the Sanctuary. Offshore areas of the Sanctuary are in relatively good condition, but nearshore coastal areas, harbors, lagoons, estuaries and tributaries show a number of problems including elevated levels of nitrates, sediments, persistent pesticides such as DDT and toxaphene, metals, coliform bacteria, detergents, and oils. These contaminants can have a variety of biological impacts including bioaccumulation, reduced recruitment of anadramous species, algal blooms, mortality due to toxicity, transfer of human pathogens and interference with recreational uses of the sanctuary due to beach closures.

During the designation of the Sanctuary in 1992, eight key water quality agencies within the Sanctuary region entered into a Memorandum of Agreement (MOA to provide an ecosystem-based water quality management process that integrates the mandates and expertise of existing coastal and ocean resource managers and protects the nationally significant resources, qualities and compatible uses of the MBNMS. In addition to the signatories to the MOA, many additional agencies, public and private organizations are working as formal members of the planning team through the Water Quality Protection Program Committee. This committee oversaw the development of the four existing plans and many members have been partners in initial implementation efforts along with a wide variety of stakeholders in the community including federal, state, and local agencies, businesses, landowners, environmental groups, and the general public.

PROGRAM UPDATES

Below is a brief summary of existing plans and the implementation efforts that have occurred in recent years. These updates are intended to provide a basis for the committee's work in identifying additional implementation updates not already listed, identifying successes and barriers to full implementation, outlining future implementation priorities and potential modifications to strategies. An additional detailed matrix on implementation efforts will be provided at the WQPP committee meeting.

WQPP Action Plan I: Implementing Solutions to Urban Runoff

Urban runoff is a significant problem in the Sanctuary's watersheds that can benefit from a coordinated regional approach towards education, training, and management. The constituents of concern associated with urban runoff include petroleum hydrocarbons, metals, sediments, detergents, nutrients, pesticides, and organics. The WQPP Urban Runoff Plan was developed in 1996 in collaboration with the WQPP committee, many of the region's public works representatives and other stakeholders. It describes seven priority strategies for addressing the problems associated with urban runoff in the region.

Strategy Name: Public Education and Outreach

Description:

The objective of this strategy was to develop a comprehensive regional education and outreach program focused on urban runoff, water quality, and watershed issues. This was to be done by coordinating and building on education efforts that address the causes of urban runoff problems, its effects on habitats and resources, and promotion of measures that reduce pollutants in runoff.

Implementation to Date:

Numerous educational materials and programs have been developed to implement this strategy. Many of these materials are available in bilingual formats.

• "Dirty Word" TM radio spots – focus on urban runoff targeting general public



ISSUE BACKGOUND: Water Quality - WQPP Implementation

- "Dirty Word" TM PSA's for television focus on urban runoff targeting general public
- Bus ad / movie slide addressing storm drains
- Roving watershed and storm drain models
- Storm drain poster
- Monterey Bay Begins on Your Street brochure
- Urban Watch program brochure
- "Storm Drains to Sanctuaries" PSA for television
- "Be Kind to Animals" Coloring book for children
- WQPP Brochure
- A Citizens Guide to Clean Water

Written materials have been distributed through a variety of venues, including businesses, schools, at public events, and teacher training workshops. Radio ad campaigns have provided multiple exposures in past years, but now lack funding for ongoing presentations. Outreach programs have included a door-to-door campaign in the City of Watsonville, incorporation of water quality lessons into teacher training workshops, and hands-on models, which are used to demonstrate polluted runoff at public events. Outreach has also included water quality presentations to local and state governments, and to various conferences, workshops and classes.

Although many excellent materials have been produced and initial distribution completed, an ongoing system of coordinated outreach programs and distribution of materials is lacking. Also, outreach has been focused on a few coastal cities and needs expansion to other areas.

Strategy Name: Technical Training

Description:

This strategy sought to develop several voluntary technical training modules for public works and planning staff, small businesses/trades, and construction companies on methods to prevent urban runoff pollution.

Implementation to Date:

This strategy has been partly implemented through a variety of educational materials and outreach programs including:

- Restaurant outreach survey to assess understanding of issue and current practices
- Restaurant outreach video, "Make The Connection"
- Restaurant Best Management Practices poster
- Automotive Best Management Practices poster

These materials for businesses have been primarily distributed through outreach programs in the cities of Monterey and Pacific Grove, utilizing funding from the cities.

The technical training strategy has also been implemented on a regional level through cohosting of 5 training workshops for public works and planning staff focused on various technical elements of a Model Urban Runoff Program (see below). The Sanctuary also conducts technical training via a contractor who assists some individual cities with training related to coliform contamination issues.

Strategy Name: Regional Urban Runoff Management

Description:

The objective of this strategy was to initiate a collaborative effort among municipal, county, and RWQCB staff to develop and implement area-wide urban runoff management programs.

Implementation to Date:

Initial implementation this strategy involved the development of a Model Urban Runoff Program (MURP), in collaboration with the cities of Monterey and Santa Cruz, the Sanctuary, CCC and the RWQCB. The MURP is a comprehensive guidebook that includes model ordinance revisions, municipal best management practices, illicit discharge detection programs, and recommendations for organizing, funding and monitoring the program. In addition to development of the guidebook, initial implementation of MURP was accomplished in Monterey, Santa Cruz and the City of Watsonville via grant funding. The guidebook has been distributed to all local jurisdictions and numerous trainings have been conducted. Several additional cities have begun adopting the recommendations.

A second key element of this strategy, the development of a formal regional approach to urban runoff, has been partly initiated by local jurisdictions. In Monterey County, Monterey Regional Water Pollution Control Agency will be serving as a regional coordinator and permit holder for a coalition of municipalities on the Monterey Peninsula to address urban runoff under NPDES Phase II regulations. A regional approach is also being considered in Santa Cruz County but has not yet been formalized.

Strategy Name: Structural / Non-structural Controls

Description:

The objective of this strategy was to develop demonstration projects and conduct briefings with municipalities, counties and special districts to promote the use of Best Management Practices (BMPs). Additional effort sought to initiate regional cooperation for prioritizing sites and adopting such practices.

ISSUE BACKGOUND: Water Quality - WQPP Implementation

Implementation to Date:

Direct implementation of this strategy has been limited to a study conducted with the City of Monterey to test the utility of oil and sediment/water separators for treating runoff from parking lots. Identification of alternative types and locations for demonstration projects, and briefings to local government have not been conducted.

Strategy Name: Sedimentation / Erosion Controls

Description:

The objective of this strategy was to initiate a collaborative effort among cities, counties, special districts, and state agencies to develop and implement an erosion / sedimentation Source Control Program (SCP) for non-agricultural areas, including urban, suburban, and rural residential developments. The strategy sought to identify and evaluate erosion control measures and standards for effectiveness and consistency across counties and municipalities, develop proposed language revisions for "model" ordinances and programs, and implement programs in pilot areas.

Implementation to Date:

CCC has compiled an initial listing of standards found in existing ordinances from a number of counties and cities in the Sanctuary region, outlining minimal grading amounts that trigger permits, areas and types of grading where seasonal restrictions may apply, erosion control plan criteria, etc. The WQPP committee has not yet reviewed this data or developed related recommendations.

Strategy Name: Storm Drain Inspection

Description:

The objective of this strategy was to develop a monitoring, mapping and management system in coastal cities for critical storm drains and outfalls with a history of contaminated flows or which drain to critical habitat.

Implementation to Date:

This strategy was partially implemented by the cities participating in the Model Urban Runoff Program, which included mapping and analysis of the storm drain system and prioritization of sites that needed additional attention. Monitoring of the storm drain system has also been underway in several cities via the Urban Watch Program and the First Flush programs. These programs are collaborative efforts between the Sanctuary, the cities, Coastal Watershed Council, and trained volunteers to take samples at selected locations monthly during the dry season and during the first large rain event of the year. Information from this program can be used to identify problem areas in the storm drain system or subwatersheds which where additional attention to infrastructure, education or enforcement is needed.

Strategy Name: CEQA Additions strategy

Description:

This strategy was intended to provide local planners and elected officials with additional analytical tools to assess the potential changes in the quantity and quality of urban runoff resulting from proposed new development. It also provides a framework to better coordinate this review between the localities and the Regional Water Quality Control Boards.

Implementation to Date

A revised CEQA checklist was developed in collaboration with Monterey County Planning Department, along with a guidebook to assist in training local planners to more thoroughly consider water quality issues related to new developments. The checklist was adopted by Monterey and Santa Cruz counties and distributed to all local jurisdictions. Additional implementation is unknown, as is the status of a statewide effort to utilize a CEQA checklist on urban runoff.

Action Plan II: Regional Monitoring, Data Access, and Interagency Coordination

The second WQPP plan developed in 1996 addresses the need for a continuous and coordinated strategy for regional monitoring of water quality and compilation of water quality data on a regional level. It also addresses the need for a continuous regional framework for coordinating ways to address water quality, implement and update the WQPP plans and develop new ones where needed.

Strategy Name: Regional Monitoring

Description:

The objectives of this strategy are to coordinate and strengthen existing monitoring activities within the Sanctuary and its adjacent watersheds, and develop a cost-effective, comprehensive approach to providing managers at federal, state, and local agencies and the public the information they need to protect aquatic resources.

Implementation to Date:

Significant implementation has been initiated on the regional coordination and strengthening of government-collected data and of data generated by volunteers. The Central Coast Regional Water Quality Control Board has led the formation of a regional monitoring program called the Central Coast Ambient Monitoring Program (CCAMP). CCAMP collects long-term data on a rotational basis in several Sanctuary watersheds as well as monitoring of critical river mouths. It has also coordinated a new regional monitoring effort with the sewage treatment plants within the Sanctuary to develop ambient water quality data on a regional level in addition to effluent monitoring. There is good coordination among these RWQCB efforts and several other monitoring efforts in

the area, however there is still not an integrated regional effort that incorporates most of the various monitoring efforts in the area.

For volunteer monitoring, the Sanctuary Citizen Watershed Monitoring Network has been established to coordinate approximately 20 volunteer monitoring groups in the Sanctuary watersheds. The Network provides standardized training and equipment, a regional website, guidance on data entry, media publicity to inform the public, and coordination and outreach to resource managers on monitoring results. It is also implementing a certification program that can be used to rank the quality of data collected by volunteers. The program also coordinates and sponsors several regional monitoring programs, including an Urban Watch program focused on dry weather storm drain sampling, a First Flush program focused on sampling of the first heavy rain of the season, and a Sanctuary-wide Snapshot Day event which samples urban and rural water quality on Earth Day each year. These volunteer monitoring efforts are a partnership between the Sanctuary Foundation, Coastal Watershed Council, the RWQCB, CCC, local cities, and volunteers. Maintaining ongoing funding for the individual volunteer groups and the Networks activities remains a critical issue.

Strategy Name: Data Access

Description:

This strategy recommended development of a digital Environmental Data Access System to link water quality data and related parameters for the Sanctuary's watersheds and ocean areas. The goal of this strategy was to provide environmental scientists and resources managers with the tools to evaluate problems and make environmental management decisions.

Implementation to Date:

CCAMP has developed a regional database and GIS mapping system to display water quality data collected by the RWQCB. The Citizen Monitoring Network has also been working with the RWQCB to allow display of its data in a volunteer version of the CCAMP system. The Central Coast Joint Data Committee administered by AMBAG has made progress in compiling and sharing GIS information on the region's watersheds including topography, land use, parcels, etc. However, additional work remains to be done by these groups and others to facilitate the display and ready access to water quality data and related information from a variety of sources.

Strategy Name: Interagency Coordination

Description:

The goal of this strategy is to develop a continuous regional framework for coordinating ways to address water quality, implement and update the WQPP plans and develop new ones where needed.

Implementation to Date:

The WQPP committee served as a coordinated regional framework during the development of the first four plans. Due to a staff vacancy in the Sanctuary's WQPP Director position, the committee has not met as a whole for 2 years until now, although various subgroups and members have been working together with Sanctuary staff to continue implementation. A charter for a more formal WQ Council was developed several years ago, but has not been implemented. There is a need to consider how to strengthen and continue the coordinated committee framework to fully implement the existing plans, and to eventually implement a new plan that will soon be underway, addressing beach closures and postings.

Action Plan III: Marinas and Boating

This action plan developed in 1997 describes strategies designed to reduce water pollution from certain activities associated with marinas and boating within the Sanctuary. Boater-generated impacts on water quality generally fall into four categories: toxic metals primarily from anti-fouling paints, hydrocarbons from motor operation and maintenance procedures, solid waste and marine debris from overboard disposal, and bacteria and nutrients from boat sewage. This plan took the approach that much of this pollution can be reduced through education and training programs and the application of new technologies.

Strategy Name: Public Education and Outreach

Description:

The objective of this strategy was to expand and build upon existing efforts conducted by individual harbors to develop a coordinated regional education and outreach program. These programs sought to communicate to boaters the environmental, recreational and economic impacts of pollution.

Implementation to Date:

There are several active partners that have been developing and distributing informational and educational products for over 5 years, including the California Coastal Commission's Boating Clean and Green Program and Save our Shores' Clean Boating Network. Grant funded educational efforts developed by the Sanctuary and/or SOS include a harbor water quality poster, water quality signage put in place at all the harbors, signage at bilge pumpout facilities, a bilge pumpout brochure. SOS also has developed a Dockwalker program that conducts one-on-one outreach and distributes educational materials to boaters at the harbors. Education and promotional activities have also accompanied the installation of new bilge pumpout facilities at all of the harbors.

Strategy Name: Technical Training

Description:

The objective of this strategy was to develop and implement a regional technical training program for harbor, marina, and boatyard employees within the Sanctuary.

Implementation to Date:

General water quality training modules were compiled, and the package was introduced to several of the harbors as part of their training for the bilge water pumpout facility. Ongoing regional training has not been addressed, except for any staff training efforts already underway by harbormasters.

Strategy Name: Bilge Waste Disposal and Waste Oil Recovery

Description:

The objective of this strategy was to facilitate the collection of contaminated bilge water through the construction and operation of new bilge water pumpout and waste handling facilities.

Implementation to Date:

In 1999, the Sanctuary in collaboration with Ecology Action and Save Our Shores received a grant from the California Integrated Waste Management Board (CIWMB). Bilge and crankcase oil pumpouts were installed at Monterey and Moss Landing harbors. A system was later installed in Santa Cruz harbor in 2002 through a similar grant. These systems, with a tremendous amount of education and promotion, have been very successful, leading to the recycling of over 8,000 gallons of oil in Monterey and Moss Landing harbors. The systems however, are very expensive to operate and maintain and strategies should be developed that will help alleviate the harbors of this burden. One possibility is to revisit the idea of sending the effluent to the sewer treatment plant, rather than back to the bay. In Pillar Point harbor, a bilge pumpout was installed prior to the 1999 CIWMB grant. This system, while operational, is much too small and antiquated for the needs of Pillar Point harbor, and new grant funds may need to be obtained.

Strategy Name: Hazardous and Toxics Material Management

Description:

The objective of this strategy was to initiate a program to provide periodic collection events at harbor districts in the Sanctuary. Additionally, it sought to resolve potential regulatory and liability issues that currently impede harbor districts taking a more active role in hazardous materials management, and to work with regional and county waste management agencies to incorporate harbor waste collection initiates into existing programs. It identified the need to develop convenient disposal options for boaters that allow for the drop-off and collection of hazardous materials in harbors and to establish

procedures for the collection of batteries, paints, solvents, antifreeze, and waste oil / fuels at periodic collection events.

Implementation to Date:

No specific targeted work on this strategy

Strategy Name: Topside and Haul-out Vessel Maintenance

Description:

The objective of this strategy was to identify and promote regional guidelines on practices that reduce contaminants from hull wash-water and first flush runoff from boatyards and parking lots. Additionally it sought to promote continued and expanded use of dust and drip containment methods and paint stripping technologies and products that result in reduced emissions. It recognized the need to review the effectiveness of policies and pollution controls addressing maintenance work at boat slips, parking lots, and unregulated work areas and to promote boat maintenance methods that generate less pollution through education efforts and / or "Clean Worker Contract" programs.

Implementation to Date:

No specific targeted work on this strategy

Strategy Name: Underwater Hull Maintenance

Description:

This strategy sought to initiate a program targeted at boat hull maintenance that promotes less toxic paints and improved under-water cleaning practices to reduce discharges to harbor waters. This would be accomplished by distributing information on less toxic paints and results of demonstration projects that evaluate new materials and maintenance methods that reduce discharges. The need to consolidate and promote guidelines for bottom paint preparation and to reduce excessive sloughing of paint was also identified. This strategy sought to initiate a training and certification program for divers who conduct under water cleaning to reduce discharges from hull cleaning practices.

Implementation to Date:

No specific regional work on this strategy, although the California Clean Boating Network is considering the issue.

Strategy Name: Harbor Pollution Reduction Progress Review

Description:

The objective of this strategy was to develop simple procedures and checklists for harbormasters to assess the current status of their pollution control efforts, and to track annual progress towards pollution reduction.

*Implementation to Date:*No specific targeted work on this strategy.

Agriculture and Rural Lands Plan

The Agriculture and Rural Lands Plan was developed in 1999 to address agricultural runoff in the form of sediments, nutrients and persistent pesticides. The Plan outlines 24 strategies intended to protect and enhance the quality of water that drains into the Sanctuary while sustaining the economic viability of agriculture. The strategies include organizing agricultural watershed groups, increasing technical assistance and education, funding and economic incentives for conservation measures, permit coordination for conservation practices, and improving maintenance practices for rural roadways and public lands.

The many partners that are working together throughout the six-county area on implementation of the Agriculture and Rural Lands Plan are known as the Agriculture Water Quality Alliance (AWQA). AWQA includes agriculture industry groups, federal, state, and local agencies, technical experts, environmental organizations and university researchers. The AWQA Steering Committee, directing the effort, has representatives from the Monterey Bay National Marine Sanctuary, Coalition of Central Coast County Farm Bureaus, Natural Resources Conservation Services, Resource Conservation Districts, and University of California, Cooperative Extension.

Section 1: Industry Networks

The three strategies in this section establish a process for developing industry-led networks of landowners and operators to address agricultural nonpoint pollution issues. Watershed-level agricultural working groups will be established in the Sanctuary's watersheds, under the leadership of existing large agricultural organizations such as Farm Bureaus and related industry groups. These industry networks will take the lead in organizing and working with their own members to establish joint projects for nonpoint source management in priority watershed areas. Strategies in this section include identifying priority target regions for joint projects, conducting outreach on nonpoint issues, assisting members in developing and carrying out voluntary site-specific management plans, obtaining outside technical assistance as needed, and tracking implementation success over time.

Implementation to Date:

Ten Agricultural Watershed Working Groups have been organized by the Coalition of Central Coast County Farm Bureaus. Over 150 farmers and ranchers participate in these groups by developing Water Quality Plans for their properties and installing conservation practices that reduce erosion and nutrient runoff. Water quality plans have been developed for 97,200 acres of crop and rangeland, and applied on 77,500 acres of crop and rangeland. A diversity of crops are represented in Agricultural Watershed Groups:

cattle, vegetables, vineyards, orchards, field and greenhouse flowers, strawberries, pumpkins, etc. Many additional groups are in the process of being formalized.

SECTION TWO: Technical Information and Outreach

Although extensive technical information exists on agricultural techniques and tools to improve water quality, this information is not always readily available/easily usable for growers and ranchers. This section contains 7 strategies developed to make this information more accessible and useful through increased support for existing technical outreach services, development of networks, cross-training of outreach staff, packaging of easily understood information, and conducting on-site follow-up with workshop participants.

Implementation to Date:

Using a congressional allocation to USDA to implement the Sanctuary's agricultural plan, several technical field staff have been hired by the agricultural agencies to assist farmers and ranchers in the six-county area, including an Agronomist, Water Quality Monitoring Specialist, Rural Roads Engineer, Rangeland Specialist, Irrigated Agriculture Specialist, Hydrologist, and an Outreach Coordinator.

Over 300 farmers and ranchers have attended a University of California Cooperative Extension course designed to help farmers develop individual water quality protection plans for their properties. Numerous workshops have been held to train farmers in the benefits and use of specific conservation practices such as cover crops, stream bank protection, irrigation evaluation, and crop row alignment.

Research has been completed on the cost effectiveness of 15 common conservation practices used in the six-county region. This information will be a useful tool for landowners to understand the financial costs and benefits of each practice.

Section Three: Education and Public Relations

There is a need for improved education of the general public about agricultural conservation issues, and of agricultural groups and the public about watershed issues as a whole. The 3 strategies in this section were developed to enhance public, grower, government agency, and media knowledge about watershed issues, and develop better recognition of the conservation practices that the agricultural community already employs.

Implementation to Date:

Two major press events have been held to highlight AWQA activities and promote conservation practices. A public relations firm was contracted to help develop a media kit explaining watershed management and agricultural conservation practices that protect water quality. A freelance journalist has been contracted to develop stories on conservation practices for both general media and industry trade journals. Resource

agency staff are invited on many of the agricultural workshops and field days hosted by AWQA partners. The UCCE Farm Water Quality Short Course, taken by all members of Watershed Working Groups, includes an overview presentation on watershed definition and function.

An AWQA Web site is currently under construction, designed to educate both the public and the agriculture industry about watershed management and agricultural conservation practices.

Section Four: Regulatory Coordination and Streamlining

This section stems from comments from both agency staff and landowners on the difficulty of the existing permitting process due to multiple agencies having jurisdiction over projects. A grower or rancher may need multiple permits from each of several agencies at the local, state, and federal levels, with separate fees, different requirements, different timelines, and sometimes contradictory mandates, even for projects which have a beneficial impact on water quality. The 3 strategies in this section were developed to simplify and coordinate the existing permitting process for practices, which protect water quality, more effectively apply existing regulations, and strengthen collaborative efforts between the regulatory agencies and the landowners.

Implementation to Date:

A watershed level permit has been developed for the Salinas Valley, modeled after the successful Elkhorn Slough permit coordination program. Under a watershed permit, conservation practices are pre-approved by the agencies, and growers can work directly with the Natural Resources Conservation Service to design and install the conservation practice. This is expected to lead to an increased number of on-the-ground projects that protect water quality. Work has begun to develop a similar streamlining program in Santa Cruz County.

Section Five: Funding Mechanisms and Incentives

Growers and ranchers are sometimes discouraged from installing conservation practices due to the initial costs for construction and then ongoing maintenance. The 5 strategies in this section include ways to assist landowners and tenants in developing funding and economic incentives for agricultural conservation measures, and to promote their long-term economic benefits. Also included are strategies to inform growers and ranchers about tax policies that provide tax relief for implementing conservation measures, and to develop new policies that can serve as an additional incentive for voluntarily adopting such measures.

Implementation to Date:

Over \$7,000,000 dollars in funding have been allocated towards the implementation of the Agriculture and Rural Lands Plan, including Congressional allocations, State grants and settlement funds, and private funding sources. NRCS has also substantially increased

its funding under the EQIP program to growers installing conservation projects in several key Sanctuary watersheds. Additional new funding sources are available under the new Farm Bill.

Section Six: Public Lands and Rural Roads

This section addresses management issues for public and private rural lands that may include activities other than farming and ranching. Roadways in rural areas can generate erosion and sedimentation problems if not properly maintained. The intent of the 3 strategies in this section is to improve both public and private planning and maintenance practices for rural roadways, in order to reduce erosion and properly dispose of sediment. In addition, this section includes a strategy to address the management and maintenance of public trust lands, which is often deficient due to a lack of foresight and funding for long-term maintenance/improvement needs.

Implementation to Date:

Training workshops for Public Works staff have been presented in Santa Cruz and San Mateo Counties. Guidelines for road maintenance practices that can prevent sedimentation and erosion are being finalized in Santa Cruz County and will be distributed to other counties for adoption of similar practice standardization. The recently hired Rural Roads Engineer (NRCS) has undergone training to begin his advisory role in the six-county area.

Challenges / Next steps

Agriculture Waiver

Prior to 2003, an Agriculture Waiver covered all nonpoint source pollution resulting from agriculture. Due to the recent decision by the Central Coast Regional Water Quality Control Board not to renew the waiver, farmers and ranchers are now required to meet certain water quality requirements. This will lead to a substantial increase in the number of farmers and ranchers that will be in need of technical assistance and who will be enrolling in workshops. Additionally, regional water quality monitoring efforts will increase significantly in order to ensure that water quality improvements are occurring. More staff and funding will be necessary to meet this demand.

Agricultural Outreach

Outreach efforts have been very successful to the Farm Bureau's broad membership. However, different outreach models need to be developed to inform farmers and ranchers who are not involved in Farm Bureau, or who do not speak English as a primary language.

WQPP COMMITTEE ROLE AS A JOINT MANAGEMENT PLAN REVIEW WORKING GROUP--

The goal of the working group is to review the existing plans and outline necessary steps for the future. The workgroup will be asked to:

- Compile and evaluate implementation information for all four plans
- Identify successes, and evaluate how to expand on them where needed
- Identify gaps in implementation —e.g. strategies not initiated, geographic areas not included, etc.
- Identify potential updates or modifications to strategies, additions and deletions
- Identify barriers to full implementation and how to overcome them
- Define future priorities for implementation
- Outline potential funding mechanisms and partnerships to enhance implementation
- Establish ongoing system to fully track implementation by multiple partners and measure future success

These evaluations and recommendations will be forwarded for review to our Sanctuary Advisory Council and to NOAA, and will serve as a basis for the Sanctuary working with its partners to address these water quality issues over the next 5 to 10 years.